

# My Publications

## **Blackledge, Michael Allan 1941-**

<http://worldcat.org/identities/lccn-n2003047879/>

**Article:** Rydberg-Klein-Rees (RKR) Franck-Condon factors for the O<sub>2</sub> Schumann-Runge system including high vibra...

R. Harris, M. Blackledge, J. Generosa

Journal of Molecular Spectroscopy 12/1969; 30(1-3):506-512.

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**Publication:** Journal of Molecular Spectroscopy, Volume 30, Issue 1, p. 506-512.

**Publication Date:** 00/1969

**Date:**

## **Abstract**

Franck-Condon factors and r-centroids for the O<sub>2</sub> Schumann-Runge system have been calculated using the Rydberg-Klein-Rees approach. The range covers 21 vibrational levels for the upper (B<sup>3</sup>S<sub>u</sub>) state and 24 for the lower (X<sup>3</sup>S<sub>g</sub>) state. Results are in poor agreement with Franck-Condon factors derived from Morse potentials, but agree fairly well with those calculated by the Jamain-Klein-Dunham method.

## **Most widely held works by Michael Allan Blackledge**

[Blackledges in America : a genealogy of Blackledge/Blacklidge descendants with roots in the United States of America](#) by Mary Ann Ryza Blackledge( Book )

5 editions published between 2002 and 2014 in English and held by 24 WorldCat member libraries worldwide

Traces descendants of several Blackledge, Blacklidge, Blackleach, etc. families in America. The main families traced are those of Phillip Blacklidg, William Blackledge and Zachariah Blackledge. Phillip Blacklidg was probably born between 1685 and 1689 in Connecticut. He married Willempe Sluys Conwell 29 November 1710 in New York City. They had nine children. He died in 1761. Descendants and relatives lived mainly in New Jersey, Indiana and Missouri. William Blackledge was probably born in England. He emigrated in about 1682 and settled in Bucks County, Pennsylvania. He married Mary Duffield, daughter of Benjamin Duffield and Elizabeth Watts. They had four children. Descendants and relatives lived mainly in Pennsylvania, Ohio and Illinois. Zachariah Blackledge was born 28 July 1767 in South Carolina. He married Mary Gressett 7 February 1787. They had twelve children. Descendants and relatives lived mainly in South Carolina and Texas

**[Closest packing of equal spheres and related problems](#)** by Michael Allan  
Blackledge( Book )

3 editions published in 1965 in English and held by 3 WorldCat member libraries worldwide

The two-dimensional packing problem is discussed, using the concept of the lattice, and the lattice which determines the closest packing of equal circles is presented. Also, closest packing in terms of density is discussed and the density value for the closest regular packing is derived. The idea of sphere-clouds is introduced and used as an introduction to the closest packing of spheres. Lattice-like arrangements of spheres are considered, and the density of such a packing is determined. Two proofs, one by John Leech and one by A.H. Boerdijk, are presented to show that it is impossible for thirteen spheres of equal radius to be in contact with a fourteenth sphere of the same radius. A second related problem is presented, which when generalized reduces to the problem of finding the number of figures with  $(N + 1)$  vertices in  $N$ -space, choosing the vertices from given sets of points on given lines passing through a common point, subject to the restriction that no  $N$  lines lie in the same  $(N - 1)$ -space. A solution by the author is presented and compared with a published solution.  
(Author)

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## Some Christopher Daniel Publications

Editor's Note: Ages are abbreviated from Latin: **Ga** (giga annum) is a billion years, **Ma** (mega annum) is a million years, **ka** (kilo annum) is a thousand years. ... (The main argument for using Ma to represent durations is that **geologists** are used to thinking about numbers **meaning** ages: 70 Ma refers to a **time** in the Cretaceous.)

Also: **Rodinia** is a Neoproterozoic supercontinent that was assembled 1.3–0.9 billion years ago and broke up 750–633 million years ago.

Also: **Orogeny** is a process in which a section of the earth's crust is folded and deformed by lateral compression to form a mountain range. In other words, an **orogeny** is an **event** that leads to a large structural deformation of the Earth's lithosphere (crust and uppermost mantle) due to the interaction between tectonic plates.

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**ABSTRACT Pr**

Decompressional metamorphic P-T paths from kyanite-sillimanite-andalusite bearing rocks in north-central New Mexico

**Abstract:**

Proterozoic rocks in six uplifts in northern and central New Mexico display decompressional metamorphic P-T paths, apparently, related to crustal extension at a time near 1,440 Ma. Metamorphic P-T paths from the Picuris, Rincon, Truchas, Rio Mora, Sandia and southern Manzano Mountains are constrained by three independent techniques: (1) Al<sub>2</sub>SiO<sub>5</sub> and other mineral parageneses; (2) the Gibbs method applied to compositional zoning in garnet and plagioclase; and (3) a new technique based upon Fe<sup>3+</sup> and Mn<sup>3+</sup> zoning in andalusite. Aluminum silicate textures suggest that kyanite and subsequent sillimanite (commonly aligned parallel to the regional foliation and lineation) are earlier than andalusite, which overprints foliation. The decompressional P-T paths are interpreted to reflect crustal extension. Contact metamorphic aureoles associated with the Priest pluton in the southern Manzano and the Sandia Granite in the Sandia Mountains place constraints upon the timing of the Ky-Sil-And metamorphism. In the southern Manzano Mountains metamorphic isograds marking the first appearance of staurolite and (closer to the pluton) sillimanite are parallel to the margin of the 1,440 Ma Priest quartz monzonite pluton. Similarly, isograds also surround the NW margin of the 1,420 Ma Sandia pluton. The regional metamorphism appears to have coincided with and to have been enhanced by the emplacement of the plutons. Because plutonism and regional metamorphism appear to have been synchronous, pluton emplacement occurred during decompression.

**Publication Date:** 1992

**Research Interests:**

[Developing Country](#), [New Mexico](#), and [Continental Crust](#)

A reconstruction of Proterozoic rocks in north-central New Mexico: Tectonic implications from the Proterozoic to the Cenozoic

Abstract:

Distinctive lithostratigraphic markers, metamorphic isobaric surfaces, major ductile thrusts and overturned folds in Early Proterozoic rocks from 4 isolated uplifts in north-central NM provide relatively firm piercing points for restoration of over 50 km of right lateral strike-slip movement along a network of N-S trending faults. In addition, the authors speculate that the Uncompahgre Group in the Needle Mts. of southern Colorado is correlative with the Hondo Group in northern NM; suggesting over 150 km of right-lateral strike slip offset has occurred across a network of N-S trending faults that includes the Picuris-Pecos fault, the Borrego fault, the Nacimiento fault and others. The tectonic implications of this reconstruction span geologic time from the Proterozoic to the Cenozoic. The restoration of slip provides new insights into the structure of the Proterozoic basement in NM. Volcanogenic basement (1.74--1.72 Ga) and overlying sedimentary cover (Hondo Group) are imbricated in an originally EW- to NW-trending ductile foreland thrust and fold belt that formed near the southern margin of 1.74--1.72 basement. The authors propose that the volcanic basement rocks correlate with rocks of the Yavapi Province in Arizona and that the Hondo Group correlates with foreland rocks of the Tonto Basin Supergroup. Rocks south of this belt are 1.65 Ga or younger and are interpreted to belong to a separate crustal province which correlates with the Mazatzal Province in Arizona. Proterozoic ductile fault geometries suggest that the Mazatzal Province was thrust northward and resulted in imbrication of Yavapi Province basement and its siliciclastic over sequence.

**Publication Date:** 1993

**Research Interests:**

Developing Country, New Mexico, and North America

A middle-crustal cross section from the Rincon Range, northern New Mexico: Evidence for 1.68-Ga, pluton influenced tectonism and 1.4-Ga regional metamorphism

Abstract:

Abstract In the Rincon Range, north of Mora, New Mexico, a relatively abrupt regional change in dominant fabric orientation occurs within Paleoproterozoic rocks which are nearly continuously exposed for~ 70 km in adjacent Laramide uplifts of the southern Sangre de Cristo Mountains. Near the village of Guadalupita, these rocks display a smooth but abrupt south-to-north change from subhorizontal to subvertical dominant foliation (S 2) over a distance of~ 2 km. This change in dominant fabric orientation coincides with a regional ...

Publication Date: 1999

Publication Name: Rocky Mountain Geology

Research Interests:

[Rocky Mountain Geology](#)

## Decompression during Late Proterozoic Al<sub>2</sub>SiO<sub>5</sub> Triple-Point Metamorphism at Cerro Colorado, New Mexico

A reconstruction of Proterozoic rocks in north-central New Mexico: Tectonic implications from the Proterozoic to the Cenozoic

Preliminary Geologic Map of the McClure Reservoir Quadrangle, Santa Fe County, New Mexico

### Abstract:

... INTRODUCTION The McClure Reservoir 7.5-minute quadrangle of north-central New Mexico contains several metallic mineral resources in Precambrian supracrustal rocks. These include polymetallic volcanogenic sulfide prospects in the Dalton Canyon area, tungsten ...

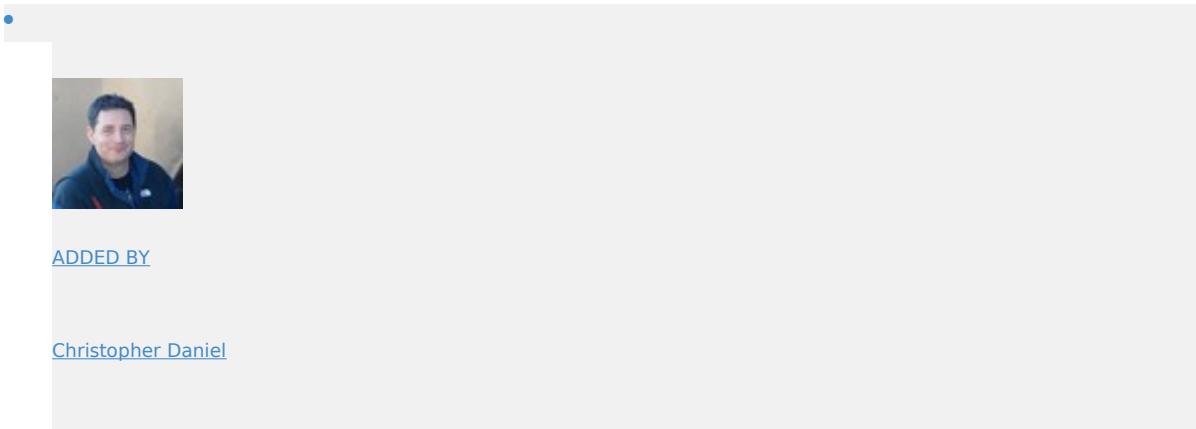
Publisher: 129.138.12.103

Publication Date: 1996

Research Interests:

[New Mexico](#)

Structural state of the K-feldspar in the Butler Hill-Breadtray Granite, S. Francois Mountains, southeastern Missouri



An overview of the Proterozoic geology in the Thompson Peak-Glorieta Baldy area, Santa Fe County, New Mexico: Socorro, New Mexico Geological Society

Tectonic and sedimentary linkages between the Belt- Purcell basin and southwestern Laurentia during the Mesoproterozoic, ca. 1.60–1.40 Ga [PDF file downloaded and stored on OneDrive > Documents > Mike > Blackledge Stories > Mike > Bonnie > Take It For Granite ]

Detrital zircon evidence for non-Laurentian provenance, Mesoproterozoic (ca. 1490–1450 Ma) deposition and orogenesis in a reconstructed orogenic belt, northern New Mexico, USA: Defining the Picuris Orogeny [\[PDF file downloaded and stored on OneDrive > Documents > Mike > Blackledge Stories > Mike > Bonnie > Take It For Granite \]](#)

Revised regional correlations and tectonic implications of Paleoproterozoic and Mesoproterozoic metasedimentary rocks in northern New Mexico, USA: New findings from detrital zircon studies of the Hondo Group, Vadito Group, and Marqueñas Formation [\[PDF file downloaded and stored on OneDrive > Documents > Mike > Blackledge Stories > Mike > Bonnie > Take It For Granite \]](#)

Monazite-Xenotime Thermochronometry and Al<sub>2</sub>SiO<sub>5</sub> Reaction Textures in the Picuris Range, Northern New Mexico, USA: New Evidence for a 1450–1400 Ma Orogenic Event [\[PDF file downloaded and stored on OneDrive > Documents > Mike > Blackledge Stories > Mike > Bonnie > Take It For Granite \]](#)

Exhumation of the Main Central Thrust from lower crustal depths, eastern Bhutan Himalaya [\[PDF file downloaded and stored on OneDrive > Documents > Mike > Blackledge Stories > Mike > Bonnie > Take It For Granite \]](#)

Restoration of Laramide right-lateral strike-slip in northern New Mexico by using Proterozoic piercing points: Tectonic implications from the Proterozoic to the Cenozoic [\[PDF file downloaded and stored on OneDrive > Documents > Mike > Blackledge Stories > Mike > Bonnie > Take It For Granite \]](#)

The reconstruction of a middle Proterozoic orogenic belt in north-central New Mexico, USA [\[PDF file downloaded and stored on OneDrive > Documents > Mike > Blackledge Stories > Mike > Bonnie > Take It For Granite \]](#)